

SUPPORT FOR AMENDMENTS TO CLAIMS:

Claim 1: “amended”

Sensor package B is fixed to the payload platform, which overcomes the objection relative to Newman.

The braking system has been removed and appears in Claim 2.

The stabilizing system has the means to orient the payload platform in several orientations. This is found in the original specification page 4, paragraphs 3 and 4:

“Another advantage in this embodiment is that the use of a level type sensor on the stable platform will create an artificial horizon that is level in relation to centrifugal forces whenever the vehicle is turning.” “The effect on an occupant is that in a turn, the stable platform will “bank” in the proper direction so that the occupant feels as if they are on a level platform.”

Specification Page 5, paragraph 2:

“The present invention automatically corrects to remove the effects of centrifugal forces. In addition the “banking” effect can be adjusted to act immediately or diminished to be hardly noticeable depending on the frequency with which the level sensor output is utilized in processing the stable platform position. A low frequency utilization will result in a slow correction or “bank” of the stable platform to the artificial horizon. A high frequency utilization will result in the stable platform being more consistent with the sensor’s actual indicated horizon.”

The terms “earth’s horizon” and “apparent gravity horizon” refer to these effects and are defined as part of the amended specification section on page 9 of this response.

Claim 2: “amended”

Original claim 1 contained the reference to the drive mechanism and the brake mechanism for preventing the payload platform from falling down. Original Claim 1.

“a braking system which prevents the stabilized payload platform from falling over when the power source to the drive mechanisms which hold the stabilized payload platform, are shut off, disconnected or fail.”

Claim 3. “amended” Dependent on Claim 1 combined with items including “table” found in

original claim 4, “bed” which is found in original claim 5, “hospital bed” found in original claim 6, “room” which is found in original claim 7.

FIGURE 3 illustrates a self-stabilized hospital or operating bed for use on vehicles.

Claim 4. “amended” Dependent upon claim 1 instead of claim 2 as submitted in the first office action response.

Claim 5. “amended” Dependent upon claim 1 instead of claim 2 as submitted in 1st office action response. Autonomous and self correcting are found on Page 4 line 10; “In one embodiment the present invention uses a novel method which is found in Grober, US 6,6112,662 to make the stable platform autonomous and self correcting.”

Claim 6. “amended” Dependent upon claim 1 instead of claim 2 as submitted in 1st office action response. Scalability is found on page 9 line 14 – 16. “Compact size and light weight are of significant importance. In one embodiment, this invention allows scalability to be smaller or larger... “

Claim 7. “canceled”. Claim was canceled in the 1st office action response.

Claim 8. “amended”. Claim 1 written in proper method claim format.

Claim 9. “amended”. Claim 8 and the braking system found in the original Claim 1.

Claim 10. “amended” Claim 8 and adding the steps of providing persons or items to be stabilized and which is found in claim 3 amended in the first office action response and referenced in the Summary of the Invention on page 8 lines 16 – 17. “In a further embodiment a table attaches to the stabilized chair, (or platform) allowing for a stabilized work station for both the operator and the objects upon the table.”

Claim 11. “amended” Original Claim 11 written in proper method claim format and dependent on Claim 8.

Claim 12. “canceled”

Claim 13. “amended” Dependent upon claim 1 instead of claim 2. The limitations have been reduced to claim one and the limitation of stabilization to a magnetic direction.

Claim 14. “canceled”

Claim 15. “amended” Dependent upon Claim 1 instead of Claim 2 with wording from claim 15 amended during response to first office action.

Page 12 lines 14 – 16. “The base plate 2 can include wheels 3 to give the stabilized table mobility. Attachment hardware 4 is used to secure the device to the vehicle ...”

Claim 16. “amended” Rewording of original claim 16, and claim 16 amended in the response to the first office action. Now dependent upon claim 1 instead of claim 2.

Claim 17. “amended” Claim dependent upon claim 1 instead of 16. Original claim 19 “The method of claim 18 further comprising a step of a tour operator pointing the stabilized occupants in any direction using a remote or wireless remote control.” The Specification page 9 paragraph 6. All embodiments preferably can be controlled by a control panel attached directly to the device, and/or a remote control panel wired to the device, and/or a wireless remote control panel to control the device.

Claim 18. “amended” Supported by original claim 18. “A method for grouping one or more anti-motion sickness devices on a sightseeing vehicle whereupon a group is formed and stabilized from the vessel pitch and roll in one, two or three orthogonal axes.”

Claim 19. (canceled.)

Claim 20. “amended” Created a method claim from rewording of original claim 16, and claim 16 amended in the response to the first office action.

Claim 21: (new) This claim is based upon the currently amended claim 1 with the limitation

“fixed to the payload platform” changed to “fixed relative to the payload platform” and two limitations found in the submitter’s Amended claim 2 of the Response to the first office action, are added in a re-worded form. The two claim 2 limitations are;

“a control system wherein the sensor data or stabilization commands will cause the stabilized payload platform to exhibit an artificial horizon such as would be the output of a level sensor,

a variable control which allows the stabilization to be adjusted throughout the range wherein the stabilized payload platform will be level with the horizon to exhibiting the artificial horizon consistent with the level sensor’s output.”

The two limitations which are not found in Newman or other prior art is that there is a control system with the means to stabilize the payload platform to the artificial horizon as would be the output of the level sensor, which has now been defined in the specification as the “apparent gravity horizon” and that there is a variable control that allows the payload platform stabilization to be adjusted throughout any orientation from the earth’s horizon to the apparent gravity horizon. The basis for the claim 2 amendment wording in the response to the first office action is found in the original specification starting on page 4 paragraph 3:

In one embodiment the present invention uses a novel method which is found in Grober, US 6,611,662 to make the stable platform autonomous and self correcting. Two sensor packages are used. The first is located on the vehicle or vessel and monitors high speed movement. A second sensor is a level type sensor which is placed upon the level platform. The bias and scale factor errors of sensor package A are corrected over time by the level type sensor package B on the stable platform. Another advantage in this embodiment is that the use of a level type sensor on the stable platform will create an artificial horizon that is level in relation to centrifugal forces whenever the vehicle is turning.

The effect on an occupant is that in a turn, the stable platform will “bank” in the proper direction so that the occupant feels as if they are on a level platform.

Page 5, paragraph 2.

The present invention automatically corrects to remove the effects of centrifugal forces. In addition the “banking” effect can be adjusted to act immediately or diminished to be hardly noticeable depending on the frequency with which the level sensor output is utilized in processing the stable platform position. A low frequency utilization will result in a slow correction or “bank” of the stable platform to the artificial horizon. A high frequency utilization will result in the stable platform being more consistent with the sensor’s actual indicated horizon.

This patent is a continuation in part of Grober US 6,611,662 in which claim 38 also does

not require the second sensor package B with level sensor means to be fixed to the payload platform. That claim 38 relies upon the limitation of using the information more often from first sensor package A than second sensor package B. The basis for novelty in this claim is the limitation of the control system, using relationships between sensor package A and sensor package B, to orient the stabilized platform in more than one orientation.

The claim 38 of Grober 6,611,662 reads as follows:

A stabilized platform comprising:

a payload platform for supporting an article to be stabilized;

a base;

a stabilizing system connected between the payload platform and the base, the stabilizing system including means for moving the payload platform with respect to the base about two different axes for providing the payload platform with stabilization in two dimensions;

a first sensor package for determining, in two transverse directions, motion of a moving object on which the stabilized platform is mounted;

a second sensor package comprising sensor means for sensing a position of the payload platform and for providing information based on the position of the payload platform relative to a predetermined position; and

a control system connected to the means for moving for stabilizing the platform in response to information provided by the first sensor package and the second sensor package, wherein the control system responds to information from the first sensor package more often than the control system responds to information from the second sensor package.

Claim 22. "new" The amended claim 13 from the Response to the first office action wherein the limitation is only
that the stabilized payload platform can maintain a compass course.

Claim 23. "new" The original claim 18 of providing one or more anti motion or stabilization devices on a sightseeing vehicle, coupled with other claims referencing just a vehicle.

Claim 24. "new" The original claim 18 of providing one or more anti motion or stabilization devices on a sightseeing vehicle, coupled with other claims referencing just a vehicle.